APPENDIX B: PROJECTS NOT REVIEWED or NOT SCORED ON CRITERION 3

Projects Presented but Not Reviewed

Proj #	Title	PI Name	Organization
ANALYSIS			
ANP-2	Hydrogen Production Infrastructure Options Analysis	Brian D. James	Directed Techs.
ANP-3	Impact of Hydrogen Production on U.S. Energy Markets	Harry Vidas	Energy & Envr. Analysis
ANP-4	Analysis of the Hydrogen Production and Delivery Infrastructure as a Complex Adaptive System	George Tolley	RCF, Inc.
ANP-5	Hydrogen Analysis Support	Marylynn Placet	Pacific Northwest National Laboratory
ANP-6	Macro-System Model	Mark Ruth	National Renewable Energy Laboratory
ANP-7	Well-to-Wheels Analysis with the GREET Model	Michael Wang	Argonne National Laboratory
FUEL CELLS			
FC-51	Fuel Cells Basic Research	Dr. Paul Maupin	U.S. Department of Energy/Basic Energy Sciences
FCP-6	Low Cost, High Performance PPSA-based PEM Fuel Cell Membranes	Junqing Ma	T/J Technologies
FCP-9	Novel, Combinatorial Method for Developing Cathode Catalysts for Fuel Cells	Keith Kepler	Farasis Energy
FCP-10	Improved Fuel Cell Cathode Catalysts Using Combinatorial Methods	Junhua Jiang	NuVant Systems
FCP-13	Development of Low-Cost, Clad Metal Bipolar Plates for PEM Fuel Cells	Scott Weil	Pacific Northwest National Laboratory
FCP-21	Complex Coolant Fluid for PEM Fuel Cell Systems	Satish Mohapatra	Advanced Fluids Tech.
FCP-22	Advanced Catalysts for Fuel Cells	S. Narayanan	JPL
PRODUCTION AND DELIVERY			
PD-8	Integrated Hydrogen Production, Purification & Compression System	Satish Tamhankar	BOC Group, Inc.
PD-9	Low-Cost Hydrogen Distributed Production Systems	Frank Lomax, Jr.	H2Gen Inno. Inc.
PD-10	Integrated Short Contact Time Hydrogen Generator	Ke Liu	GE Global Research
PD-22	Photoelectrochemical Hydrogen Production Using New Combinatorial Chemistry Derived Materials	Eric McFarland	University of California, Santa Barbara
PD-36	Hydrogen Production Using Nuclear Energy	A. David Henderson	U.S. Department of Energy
PD-37	Basic Research Needs for Hydrogen Production	Prof. Tom Mallock	Pennsylvania State University
PDP-11	Zeolite Membrane Reactor for Water-Gas-Shift Reaction for Hydrogen Production	Jerry Y.S. Lin	University of Cincinatti
PDP-12	Large Area Cell for Hybrid Solid Oxide Fuel Cell Hydrogen Co-Generation Process	Joseph Hartvigsen	Ceramatec Inc.
PDP-18	Inorganic Membrane Porous Support Tube Fabrication	Brian Bischoff	Oak Ridge National Laboratory

Proj #	Title	PI Name	Organization
PDP-21	Ion Transport Membranes for Hydrogen Separation	Andrew Payzant	Oak Ridge National Laboratory
PDP-26	High-Performance, Durable, Palladium-Alloy Membrane for Hydrogen Separation & Purification	Scott Hopkins	Pall Corp.
PDP-29	Maximizing Light Utilization Efficiency & Hydrogen Production in Microalgal Cultures	Tasios Melis	University of California, Berkeley
PDP-30	Novel Two-Stage Process for Photobiological Hydrogen Production	Juergen Polle	Advanced Bionutrition Corp.
PDP-31	Hydrogen from Water in a Novel Recombinant Oxygen-Tolerant Cyanobacteria System	Hamilton Smith	J. Craig Venter Inst.
PDP-34	Solar Water Splitting: Photocatalyst Materials Discovery & Systems Development	Thomas McNulty	GE Global Research
PDP-35	Critical Research for Cost-Effective Photoelectrochemical Production of Hydrogen	Liwei Xu	Midwest Optoelectronics
PDP-36	Bioinspired Composite Nanomaterials for Photocatalytic Hydrogen Production	John Peters	Montana State University
PDP-37	Photoelectrochemical Hydrogen Production	Arun Madan	MVSystems, Inc.
PDP-38	Development of Water Splitting Catalysts Using a Novel Molecular Evolution Approach	Neal Woodbury	Arizona State University
PDP-43	Modular System for Hydrogen Generation & Oxygen Recovery	Iouri Balachov	SRI International
PDP-44	Fundamentals of a Solar-thermal Mn2O3/MnO Thermochemical Cycle to Split Water	Alan Weimer	University of Colorado
PDP-50	Hydrogen Delivery Infrastructure Options Analysis	Tan-Ping Chen	Nexant Inc.
PDP-51	New Materials for Hydrogen Pipelines	Barton Smith	Oak Ridge National Laboratory
PDP-52	Evaluation of Natural Gas Pipeline Materials and Infrastructure for Hydrogen/Hythane Service	Thad Adams	Savannah River National Laboratory
PDP-53	Novel Hydrogen Screw Compressor	David Livengood	Argonne National Laboratory
PDP-54	Inexpensive Delivery of Compressed Hydrogen with Advanced Vessel Technology	Salvador Aceves	Lawrence Livermore National Laboratory
SAFETY, CODES & STANDARDS			
SAP-2	IEA Hydrogen Implementing Agreement Secretariat	Mary-Rose de Valladares	M.R.S. Enterprises, LLC
STORAGE			
ST-8	A Synergistic Approach to the Development of New Hydrogen Storage Materials	Samuel Mao	University of California
ST-11	Center of Excellence for Chemical Hydrogen Storage	Bill Tumas	Los Alamos National Laboratory
ST-20	System Level Analysis of Hydrogen Storage Options	Rajesh Ahluwalia	Argonne National Laboratory
STP-1	Next Generation Hydrogen Storage Containers	Andrew Weisberg	Lawrence Livermore National Laboratory
STP-2	Fuel Cell and Hydrogen Research	Lee Stefanakos	University of South Florida

Proj #	Title	PI Name	Organization
STP-3	Center of Excellence for Chemical Hydrogen Storage: PNNL Tasks and Collaborations	Chris Aardahl	Pacific Northwest National Laboratory
STP-4	Electrochemical Hydrogen Storage Systems	Digby MacDonald	Pennsylvania State University
STP-5	Main Group Element Chemistry for Hydrogen Storage and Activation	Anthony Arduengo	University of Alabama
STP-6	Chemical Hydrogen Storage Using Ultra-High Surface Area Main Group Elements	Philip Power	University of California, Davis
STP-7	Chemical Hydrogen Storage Using Polyhedral Borane Anion Salts	Fred Hawthorne	University of California, Los Angeles
STP-8	Amineborane Hydrogen Storage	Larry Sneddon	University of Pennsylvania
STP-9	Kinetic and Mechanistic Studies of B-N Hydrogenation/Dehydrogenation	Mike Heinekey	University of Washington
STP-10	Development of Advanced Chemical Hydrogen Storage and Generation System	Ying Wu	Millennium Cell
STP-11	Novel Approaches to Hydrogen Storage: Conversion of Borates to Boron Hydrides	Susan Linehan	Rohm and Haas
STP-12	Combinatorial Synthesis and High Throughput Screening of Effective Catalysts for Chemical Hydrides	Xiao-Dong Xiang	Intematix Corp.
STP-13	Development of Regenerable, High-Capacity Boron Nitrogen Hydrides for Hydrogen Storage	Ashok Damle	Research Triangle Institute
STP-14	Safety Analysis and Applied Research on the Use of Borane-Amines for Hydrogen Storage	Clinton Lane	Northern Arizona University
STP-15	Overview of DOE Metal Hydride Center of Excellence (MHCoE)	Jim Wang	Sandia National Laboratory
STP-16	Synthesis and Properties of Aluminum Hydride as a Hydrogen Storage Material	Jim Wegrzyn	Brookhaven National Laboratory
STP-17	Development and Evaluation of Advanced Hydride Systems for Reversible Hydrogen Storage	Robert Bowman	Jet Propulsion Laboratory
STP-18	Neutron Scattering Characterization and Thermodynamic Modeling of Advanced Metal Hydrides for Reversible Hydrogen Storage	Terry Udovic	National Institute of Standards and Technology
STP-19	Novel Synthetic Approaches for the Preparation of Complex Hydrides for Hydrogen Storage	Gilbert Brown	Oak Ridge National Laboratory
STP-20	Development of Reversible Hydrogen Storage Alane	Ragaiy Zidan	Savannah River National Laboratory
STP-21	Synthesis of Nanophase Materials for Thermodynamically Tuned Reversible Hydrogen Storage	Channing Ahn	California Institute of Technology
STP-22	Thermodynamically Tuned Nanophase Materials for Reversible Hydrogen Storage: Structure and Kinetics of Nanoparticle and Model System Materials	Bruce Clemens	Stanford University
STP-23	Reversible Hydrogen Storage Materials – Structure, Chemistry and Electronic Structure	Ian Robertson	University of Ilinois – U-C

Proj #	Title	PI Name	Organization
STP-24	Effect of Gaseous Impurities on Long-Term Thermal Cycling and Aging Properties of Complex Hydrides for Hydrogen Storage	Dhanesh Chandra	University of Nevada - Reno
STP-25	First-Principles Modeling of Hydrogen Storage in Metal Hydride Systems	Karl Johnson	University of Pittsburgh
STP-26	Synthesis and Discovery of Nanocrystalline Reversible Hydrides by Vapor Phase Reactions	Zak Fang	University of Utah
STP-27	Lightweight Intermetallics for Hydrogen Storage	J.-C. Zhao	GE
STP-28	Thermodynamically Tuned Nanophase Materials	Greg Olson	Hughes Research Labs
STP-29	High Throughput Combinatorial Chemistry Development of Complex Metal Hydrides	Xiao-Dong Xiang	Intematix Corp.
STP-30	Overview of DOE Carbon-based Materials Center of Excellence	Mike Heben	National Renewable Energy Laboratory
STP-31	Metal-doped Carbon Aerogels for Hydrogen Storage	Joe Satcher	Lawrence Livermore National Laboratory
STP-32	Synthesis and Processing of Single-Walled Carbon Nanohorns for Hydrogen Storage and Catalyst Supports	David Geohegan	Oak Ridge National Laboratory
STP-33	Neutron Characterization of Carbon-Based Materials	Dan Neumann	National Institute of Standards and Technology
STP-34	Enhanced Hydrogen Dipole Physisorption	Channing Ahn	California Institute of Technology
STP-35	Controlling the Diameter of Single Walled Carbon Nanotubes for Hydrogen Storage	Jie Liu	Duke University
STP-36	Study of Hydrogen Storage in Advanced Boron and Metal Loaded High Porosity Carbons	Peter Eklund	Pennsylvania State University
STP-37	Cloning Single Wall Carbon Nanotubes for Hydrogen Storage	Richard Smalley	Rice University
STP-38	Optimization of SWNT Production and Theoretical Models of H_2-SWNT Systems for Hydrogen Storage	Boris Yakobson	Rice University
STP-39	Examination of the Physical Aspects of Hydrogen Storage in MOFs	Omar Yaghi	University of Michigan
STP-40	Hydrogen Storage in Graphite Nanofibers and the Spillover Mechanism	Ralph Yang	University of Michigan
STP-41	Characterization of Hydrogen Adsorption by NMR	Yue Wu	University of North Carolina
STP-42	Conducting Polymers as New Materials for Hydrogen Storage	Alan MacDiarmid	University of Pennsylvania
STP-43	Designing Microporous Carbons for Hydrogen Storage Systems	Guido Pez	Air Products
STP-44	Carbide-Derived Carbons with Tunable Porosity Optimized for Hydrogen Storage	Yury Gogotsi	University of Pennsylvania
STP-45	Electron-Charged Graphite-Based Hydrogen Storage Material	Chinbay Fan	GTI
STP-46	Nanostructured Activated Carbon for Hydrogen Storage	Israel Cabasso	SUNY - Syracuse
STP-47	Glass Microspheres for Hydrogen Storage	Matt Hall	Alfred University

Proj #	Title	PI Name	Organization
STP-48	Inorganic Clathrates for Hydrogen Storage	Viktor Struzhkin	Carnegie Institute
STP-49	Metal Perhydrides for Hydrogen Storage	Jim Hwang	Michigan Technology University
STP-50	Hydrogen Storage Materials with Binding Intermediate Between Chemisorption and Physisorption	Juergen Eckert	University of California, Santa Barbara
STP-51	Lithium Nitride-Based Materials for Hydrogen Storage	Leon Shaw	University of Connecticut
STP-52	New Concepts for Optimized Hydrogen Storage in MOFs	Omar Yaghi	University of Michigan
STP-53	Hydrogen Storage in Novel Organic Clathrates	Jerry Atwood	University of Missouri - St. Louis
STP-54	Hydrogen Absorption on Irradiated Carbon and Other Materials	Luis Muga	TOFTEC, Inc.
STP-55	Development of Complex Metal Hydride Hydrogen Storage Materials	Jim Ritter	University of South Carolina
STP-56	Clean Energy Research Project III: Hydrogen Storage Using Chemical Hydrides	Michael Matthews	University of South Carolina
STP-57	Underground LH2 Off-Board Hydrogen Storage Technology	Mark Richards	GTI
STP-59	Fundamental Studies of Advanced High-Capacity, Reversible Metal Hydrides	Craig Jensen	University of Hawaii
STP-60	Center of Excellence for Chemical Hydrogen Storage: LANL Tasks and Collaborations	Bill Tumas	Los Alamos National Laboratory
STP-61	Center of Excellence for Chemical Hydrogen Storage: LANL Tasks and Collaborations	Bill Tumas	Los Alamos National Laboratory
STP-62	Development of Metal Hydrides at Sandia National Laboratories	Jim Wang	Sandia National Laboratory
STP-63	NREL Activities in DOE Carbon-based Materials Center of Excellence	Mike Heben	National Renewable Energy Laboratory
TECHNOLOGY VALIDATION			
TVP-3	NextEnergy Microgrid and Hydrogen Fueling Facility	Dave McLean	NextEnergy
TVP-7	R&D of a PEM Fuel Cell, Hydrogen Reformer, and Vehicle Refueling Facility (Las Vegas Energy Park)	Mark Wait	Air Products
TVP-10	Hydrogen Fuel Project - H2Fuel	Dereck Morse	RTC of Washoe County
TVP-13	Global Assessment of Hydrogen Based Technologies	Robert Peters	University of Alabama
BRAZIL GUEST POSTERS			
-	Brazilian Fuel Cell Program (ProCaC)		Brazilian Ministry of Science and Technology
-	Brazilian Roadmap for a Hydrogen Economy		Brazilian Ministry of Mines and Energy

Reviewed Projects Not Scored on Technical Accomplishments (Criterion 3)

Proj. #	Title	Name	Organization
PD-7	Hydrogen Generation from Biomass-Derived Carbohydrates via the Aqueous-Phase Reforming (APR) Process	Randy Cortright	Virent Energy Systems
PD-13	Low Cost Hydrogen Production from Biomass Using Novel Membrane Gasification Reactor	Francis Lau	GTI
PD-14	A Novel Slurry-Based Biomass Reforming Process	Tom Vanderspurt	United Technology Research Center
PD-34	Reversible Liquid Carriers for an Integrated Production, Storage & Delivery of Hydrogen	Guido Pez	Air Products
PD-35	Materials Solutions for Hydrogen Delivery in Pipelines	Subodh K. Das	Secat, Inc.
PDP-24	A Novel Membrane Reactor for Hydrogen Production from Coal	Francis Lau	GTI
PDP-42	System Design and New Materials for Reversible Solid-Oxide, High-Temperature Steam Electrolysis	James Ruud	GE Global Research
PDP-46	Combined Reverse-Brayton Joule-Thompson Hydrogen Liquefaction Cycle	Martin Shimko	Gas Equipment Engineering Corporation
PDP-47	Active Magnetic Regenerative Liquefier (AMRL) Development	Robert Thompson	New Concepts Research Corporation
PDP-48	Hydrogen Embrittlement of Pipeline Steels: Causes & Remediation	Petros Sofronis	University of Illinois